

IN THE CLAIMS:

This listing of claims replaces, without prejudice, all prior versions and listings of claims in the application:

1. (Currently Amended) A dynamic irradiation process for the depolymerization of heparin wherein the depolymerized heparin has a M_w less than or equal to 50% of the original M_w of said heparin prior to depolymerization, said dynamic irradiation process comprising exposing said heparin in solution at a concentration between 2 and 25% w/v to UV radiation having a peak of from 245 nm to 260 nm for a sufficient time to reduce the M_w of the depolymerized heparin by at least 50% as compared with the M_w of said heparin prior to said exposure to UV radiation.

2. (Currently Amended) The dynamic irradiation process according to claim 1, wherein the source of UV radiation is a medium or low pressure Hg lamp.

3. (Currently Amended) The dynamic irradiation process according to claim 1, wherein the UV radiation has a prevalent emission band at 253 nm.

4. (Canceled)

5. (Canceled)

6. (Currently Amended) The dynamic irradiation process according to any one of claims 1, 2, or 3, wherein the depolymerization process is carried out at a temperature of between 0 and 70 °C.

7. (Canceled)

8. (New) The dynamic irradiation process according to any one of claims 1, 2, or 3, wherein the depolymerization process is carried out at a temperature of between 10 and 60 °C.

9. (New) The dynamic irradiation process according to any one of claims 1, 2, or 3, wherein the solution has a concentration between 4 and 15% w/v.